

ENERGY – CROATIA

January 2002

I. Statistical Information -- Primary Energy Consumption

2000	PJ(1)	%
Coal	17.15	4.8
Liquid Fuels	160.52	44.6
Natural Gas	94.98	26.4
Hydro Power	56.93	15.8
Fuel Wood	15.64	4.3
Electricity	14.4	4.0
TOTAL	359.62	100

(1) Peta-Joules

Source: Energy in Croatia 1996-2000, Croatian Ministry of Economy

II. Evaluation of Sector -- Electrical power Systems, Oil and Gas field machinery and Services and Renewable Energy Equipment

A) On a scale of 1 (low) to 5 (high), evaluate the priority given by the host government to energy development: 3

B) On a scale of 1 (low) to 5 (high), evaluate country's receptivity to U.S. products & services: 3

C) On a scale of 1 (heavy) to 5 (little), evaluate competition for U.S. exporters from local domestic suppliers: 4

D) On a scale of 1 (heavy) to 5 (little), evaluate competition for U.S. exporters from third-country suppliers: 1

E) On a scale of 1 (severe) to 5 (little), evaluate overall effect of trade barriers on U.S. exports of products and services: 5

III. Narrative Information

Beginning in January 2002, the Croatian government launched a substantial reform of the energy sector including establishing an independent Energy Regulatory Agency and defining programs for restructuring and privatization of key state-owned companies. International consultants were hired to assist in the process. The reform will provide U.S. energy sector firms with improved access to the Croatian market as well as with significant opportunities for export of equipment and services and for green-field, strategic and equity investments. Large

forthcoming projects include modernization of refineries, oil pipeline reversal and improvement of electricity transmission and distribution network.

Background

The Ministry of Economy, which is the lead government agency for developing and implementing Croatia's energy policy, is undertaking substantial reform of the energy sector. The goal of the reform is to enable and regulate competition according to European Union directives and to provide the basis for privatization of the three large, state-owned companies that currently dominate the sector:

- Croatian Electricity Company (Hrvatska Elektroprivreda or HEP – www.hep.hr)
- Croatian Oil & Gas Company (Industrija Nafta or INA – www.ina.hr)
- Adriatic Pipeline (Jadranski Naftovod or JANAF – www.janaf.hr).

Reform of the energy sector formally started in July 2001, when the Croatian Parliament passed the following laws:

- Law on Energy
- Law on Electricity Market
- Law on Energy Regulatory Agency
- Law on Oil and Oil Derivatives Market and
- Law on Gas Market.

The actual implementation of these laws began on January 1, 2002 and their unofficial English translation is available from the Commercial Service of the American Embassy Zagreb or at the web site of the Ministry of Economy (www.mingo.hr). It is expected that the independent energy regulatory agency will be established and sub-regulations adopted by the end of January, 2002.

The liberalization of the electricity market will start with the largest consumers (over 40 GWh/year), which will be allowed to negotiate directly with suppliers. There are about 15 such consumers in Croatia. Foreign companies can also be suppliers, provided that they are registered/licensed for this business activity in Croatia. For the time being, consumers smaller than 40 GWh/year will have to continue to buy electricity at prices set by the tariff system. However, within the next few years, the 40-GWh/year-limit will be gradually reduced as market competition develops and will ultimately disappear – allowing all consumers to benefit from a free market.

In December 2001, the Ministry of Economy drafted laws on privatization of the three state-owned monopolies – HEP, INA, and JANAF. After they are approved by the government, the laws will be submitted to the parliament and it is expected that they will be adopted during the first half of 2002. The ministry hired the following international consultants to advise them and assist with this first phase of restructuring and privatization:

- for HEP: Norton Rose (www.nortonrose.com)
- for INA: PricewaterhouseCoopers (www.pricewaterhousecoopers.com) and Deutsche Bank (www.deutschebank.com)
- for JANAF: ABN-AMRO (www.abnamro.com) and Zagrebacka bank (www.zaba.hr)

According to current government thinking, HEP will not be privatized plant by plant. It could remain more or less as it is, in the form of a holding company responsible for generation, transmission, distribution, and retailing of electricity. However, HEP's transmission division (400 and 220 kV network) could be separated and remain state-owned. The government will be looking for financial investors in HEP (perhaps by an IPO in 2003), rather than for a strategic partner.

There are about nine options on the table for restructuring of INA. Here, it is also most likely that the company will be kept integrated in its core business – oil and gas production, while its two refineries and retail network would be privatized separately (probably involving a strategic partner, because of necessary modernization). Also, it is likely that INA will be divested of its 38% share of JANAF. For the beginning, the government will be looking for strategic or financial investors that would buy up to 20-30% of INA during 2002.

Since JANAF's oil transportation business is rapidly increasing due to the re-opening of the Serbian market, foreign investors have expressed interest in this firm. The government will be looking for a strategic partner for JANAF, but not offering majority ownership. Even though the pipeline was built for transportation of oil from its Omisalj terminal on the island of Krk to the refineries on the continent (Croatia, Hungary, and Serbia), very little investment and time is needed to reverse and upgrade the pipeline. As JANAF's terminal at Omisalj has a port with the capacity to serve supertankers of up to 500,000 tons year round, cost of transportation of oil from the continent to the sea through JANAF could be rather low. Two large international pipeline projects are being considered to explore this opportunity: project DruzhbaAdria for export of crude oil from Russia and project SEEL (South East European Line) to export oil from Caspian Sea region.

Implementation of the energy sector reform will gradually open numerous opportunities for US energy sector experts and services providers. Also, although their technical background is sound, people at HEP, INA, and JANAF have no experience and very limited knowledge on how to operate in an open market environment. They will need consulting and other services in order to meet this challenge.

In view of this ongoing energy sector reform, the Croatian Government is unlikely to make any decisions on new major projects until the restructuring and privatization process is completed.

For further analysis of the Croatian energy sector, a useful resource is the annual statistical report prepared by the Ministry of Economy. For a copy of the latest report, contact the Commercial Service of the American Embassy Zagreb. Most of the statistical data in this market brief was taken from that report.

Electrical Power Generation and Transmission Equipment

The Croatian Electricity Company (HEP) is the state owned company responsible for electric power generation, transmission and distribution. The installed generating capacity totals 4,583 MW. Of this amount, hydroelectric power plants provide 2,076 MW (46%), thermal power plants (primarily oil, gas, hard coal and diesel) provide 2,175 MW (47%) -- of which 650 MW is located outside Croatia --, and Croatia's share of the joint Krsko nuclear station located in Slovenia provides 332 MW (7%). In 2000, total production of electricity was 10,701 GWh (55% from hydropower plants, 45% from thermal power and cogeneration plants), 4,386 GWh was imported and 386 GWh exported. Because of a dispute with the Slovenian Government,

Croatia has not been using electricity from the Krsko nuclear station since 1998. However, in December 2001, the two governments signed an agreement which settles outstanding issues related to this plant. The agreement is expected to be ratified by the respective parliaments in the first half of 2002.

The electric power transmission system consists of five 400/x kV substations, fifteen 220/110 kV substations, 140 110/x kV substations; 1,161 km of 400 kV lines, 1,224 km of 220 kV lines, and 4,777 km of 110kV lines. In 2000, the average electricity price per kWh was 45.19 Croatian Lipas (about 5.6 cents), net of 22% Value Added Tax.

During the last ten years, Croatia made or started the following major investments into new power-generation facilities:

- o in 1993, a total of about \$60 million was spent on two 25 MW simple cycle power plants and on about fifty 0.8 MW containerized diesel generators to reduce emergency shortages of electricity in the Croatian coastal region;
- o in 1999, construction of the 210 MW coal-fired thermal power plant Plomin II was completed (the work was performed by a German consortium);
- o in 1999, work was started on repowering the 180 MW gas-fired thermal power and heating plant Zagreb East (work performed by Parsons Power, Inc.).

Estimated average yearly spending on maintenance of existing capacities is about \$50 million, of which about 80% is for imported equipment. The estimated domestic component for a typical new thermal power plant project is between 30 and 50%, and about 80% for a hydropower plant. Given the current electricity consumption levels and trends, the Croatian government anticipates no need for additional production capacities by 2005.

There is no statistical information readily available on Croatian production, imports, and exports of electric power systems components.

Electric Power Generation Sources

2000	Capacity MW	Production GWh
Thermal	2,175	5,892
Hydro	2,076	4,250
Nuclear	332	0
Total	4,583	10,141

Source: Energy in Croatia 1996-2000, Croatian Ministry of Economy

Oil & Gas Industry and Equipment

The key oil and gas company in Croatia is the state-owned company INA. At the end of 1999, INA's total installed oil processing capacity (in million tons/year) in its four refineries was:

atmospheric distillation	9.00
reforming	1.45
FCC	1.50

visbreaking	0.60
isomerization	0.23
aromates	0.83
vacuum distillation	1.43
deasphalting	0.11
furfurol extraction	0.21
deparaffination	0.14
ferofining	0.23
paraffines hydro processing	0.02
deoling	0.03
bitumen	0.70
coking	0.24
lubricants	0.06

In December 2001, US Trade and Development Agency, signed a \$410,000 grant agreement with INA for partially funding a feasibility study to assess planned modernization at INA's two main refineries. The estimated total U.S. export potential in implementation of this project is \$125 million (the estimated total project cost for the upgrades is \$560 million).

In 2000, there were a total of 625 petrol stations in Croatia, of which 402 were owned or branded by INA. Total length of INA's high-pressure pipeline for transportation of natural gas in Croatia was 2,178 km. There were 38 companies dealing with distribution of natural gas and the total length of the natural gas distribution pipeline was 14,366 km. Total length of oil pipeline was 610km -- these are controlled by the state-owned company JANAF.

As of December 2000, Croatia's total oil reserves were about 11.5 million metric tons and gas reserves were about 29 billion m3. In 2000, total crude oil production was 1.2 million metric tons, gross refinery output was 5.3 million metric tons, and total natural gas production was 1.7 billion m3. Total crude oil imports were 3.9 million metric tons, and exports were 0.17 million metric tons. Total liquid fuel imports in 2000 were 0.2 million metric tons, and exports were 1.7 million metric tons. Total natural gas imports in 1999 were 1.1 billion m3 and there were no exports.

A portion of gas is coming from joint exploitation with the Italian company ENI of the recently discovered gas field "Ivana" in the north Adriatic. Significant investments will be required for upgrading the natural gas pipeline network in Croatia in order to fully explore this gas field.

Renewable Energy Equipment

At present, renewable energy is of marginal use in Croatia. There is a potential for use of solar energy, wind energy (estimate 150-300 MW), and for about 400-600 small hydropower plants (below 5MW).

IV. Major Procurements or Private Projects on the Horizon (next 18-36 months)

In view of the ongoing energy sector reform that includes restructuring and privatization of the key companies, the Croatian Government is unlikely to make any decisions on new major projects until this process is completed.

V. Major Trade Events/Fairs in 2002

There are no specialized trade events for the energy sector in Croatia. The single largest fair is the Zagreb Fall Fair, held annually during the third week of September, which attracts in average 2,500 exhibitors from 45 countries and 250,000 visitors (see more details at www.zv.hr). US pavilion is organized by a private exhibition contractor. For more information, please contact Mr. Damjan Bencic (e-mail: Damjan.Bencic@mail.doc.gov) or the organizer directly:

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VI. Country's Methods of Procurement

The procedure applied by state agencies and state controlled companies (such as HEP, INA, and JANAF) "for each procurement for which the value of goods, services or works within a budget year exceeds 200,000 Croatian Kunas" (about \$25,000) is prescribed by the Law on Procurement of Goods, Works and Services published in the Official Gazette No. 142 of 1997 (a copy of the unofficial English translation is available from the American Embassy). According to the Law, in principle, such purchases should be done via public tender published in the local press or in the Official Gazette. Public tenders for procurement of goods and works of the value of over 12 million Kunas (about \$1.5 million) or for procurement of services of the value of over 6 million Kunas (about \$0.75 million) should also be published in the international press. Foreign competitors are free to compete with local firms, unless the limitation to the domestic bidders is declared in the tender. Foreign competitors do not compete on an equal footing with local firms -- according to the Law, for the purpose of the evaluation and comparison of bidders, the CIF price of the foreign bidder shall be increased 15% for goods, 7.5% for works, and 5% for services. A "domestic bidder" must be registered in Croatia and its offered producer price must include at least 50% of the domestic added value, or, in performing works or services, it must use at least 50% of domestic goods and materials and include at least 50% of domestic contractors. The Law does not apply to procurement based on loans obtained from multilateral development banks when procurement procedures are a part of the contract. The Ministry of Finance is responsible for ensuring that procurement is done in conformity with the legislation.

VII. Means of Financing Procurements

The main source of financing for eventual major projects would be foreign loans and foreign direct investments.

VIII. Points of Contact

American Embassy:

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Consulting Companies

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